

*Sub Spec  
Approved  
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**SUBSTITUTE SPECIFICATION**  
**CROSS-REFERENCE**

- [0001] This non-provisional application claims benefit of and priority to German Application Number 103 11 610.9-23, filed March 14, 2003, the disclosure of which is hereby incorporated by reference herein.

**BACKGROUND**

- [0002] The present disclosure relates to a rotary-cutting disk having a draining duct for a liquid phase from a centrifuge, particularly from a separator.
- [0003] Rotary-cutting disks - also called grippers - for centrifuges are known in many different embodiments such as from U.S. Patent Document US 2,667,338. It is their object to drain a liquid phase from a centrifuge. Because of the type of their construction, many of the known solutions require high expenditures for their manufacture. Examples of this type are shown in European Patent Document EP 0 892 680 B1, International Patent Document PCT/SE88/00181, U.S. Patent Document US 4,406,652, U.S. Patent Document US 2,230,210 or European Patent Document EP 0 756 523 B1.
- [0004] British Patent Document GB 987023 and European Patent Document EP 0 756 523 are also mentioned with respect to the state of the art.
- [0005] In practice, depending on the number of liquid phases to be drained, one or more of the rotary-cutting disks are arranged concentrically with respect to the axis of rotation of the centrifuge. Thus, it is known, for example, to place the rotary-cutting disks onto an intake tube of a separator. Furthermore, generally, the rotary-cutting disks have a disk-shaped or plate-shaped base section preferably adjoined by a tube-shaped section. They generally stand still relative to the rotating centrifuge. They have at least one draining duct by which liquid is again diverted from the inlet at the outer circumference of the disk-shaped section to the outlet in one or more axial draining ducts in the tube-shaped section and, from there, the liquid is drained from the centrifuge. The at least one draining duct diverts the liquid in the disk-shaped section in the case of a known variant, for example, by slightly more than 90° from the flow direction at the outer circumference of the rotary-cutting disk in a curve toward the inside.